**Homework 65-FORM A** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Trig to Find Missing Sides** Period:\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Failure to show all work will result in LaSalle!**

|  |  |
| --- | --- |
| 1) You are on a straight line approach path that forms a 3° vertical angle with the runway as you land an airplane. When you are 500 feet above the ground, the distance *d* represents your path until touchdown. Which of the following could be used to find *d?*  Adj  Opp  Hyp   1. 500 sin 3 2. 500 tan 3 | 2) You are 50 feet from the screen at a drive-in movie. Your eye is on a horizontal line with the bottom of the screen and the angle of elevation to the top of the screen is 58°. Which of the following would find the height of the screen?  Hyp  Adj  Opp     1. ~~50 cos 58~~ 2. 50 tan 58 |
| 3) To calculate the height *h* reached by a model rocket, you move 100 feet from the launch point and record the angle of elevationθ to the rocket at its highest point. The values of θ for three flights are given below. Find the rocket's height to the nearest foot for the given θ in each flight.  h  100   1. θ = 77°   A) tan77=    h=\_\_\_­­\_\_\_\_    B) h= 100tan81  h=\_\_\_\_\_\_\_  C) h=100tan83  h=\_\_\_\_\_\_\_\_  X=\_\_\_\_\_   1. θ = 81° 2. θ = 83°     Opp  Adj | 4) You are using an extendable ladder to paint the side of a wall. For safety, you should always use an angle of about 75.5° between the ground and the ladder. Find the length of the ladder *x* at the following distances **from the wall**.  A) x =    X=\_\_\_­­\_\_\_\_    B) x=  X=\_\_\_\_\_\_\_  C) x=  X=\_\_\_\_\_  7  cos 75.5  a. 3 ft  b. 5 ft.  c. 7 ft.  5  cos 75.5    7  cos 75.5  x |
| 5) You are 50 feet from the screen at a drive-in movie. Your eye is on a horizontal line with the bottom of the screen and the angle of elevation to the top of the screen is 58°. How tall is the screen?    X= 50tan58 | 6) Find the perimeter of the triangle. Round to the nearest tenth.  x  49  tan36=  x = \_\_\_\_\_\_\_\_\_  Cos36=  y = \_\_\_\_\_\_\_\_\_  49  y    P= x + y + 49  P= \_\_\_\_\_\_\_\_\_\_\_\_ in. |